**Exercise** 1 Let functions r and s be defined by the table below.

**Problem 1.1** Determine:

- $(s \circ r)(3) = \boxed{-8}$
- $\bullet \ (s \circ r)(-4) = \boxed{5}$
- $(s \circ r)(0) = \boxed{0}$

**Problem 1.2** Select all the values that are in the domain of r.

Select All Correct Answers:

- (a) -8
- (b) -7
- (c) -6
- (d) -5
- (e) -4  $\checkmark$
- (f) −3 ✓
- (g) -2  $\checkmark$
- (h)  $-1 \checkmark$
- (i) 0 ✓
- (j) 1 ✓
- (k) 2 ✓
- (l) 3 ✓
- (m) 4 ✓
- (n) 5
- (o) 6

<ul><li>(p) 7</li><li>(q) 8</li></ul>	
(1)	
Problem 1.3	3 Select all the values that are in the domain of s
Select All Co	prrect Answers:
(a) $-8$	
(b) $-7$	
(c) $-6$	
(d) $-5$	
(e) $-4$ $\checkmark$	
(f) $-3$ $\checkmark$	
(g) $-2$ $\checkmark$	
(h) $-1 \checkmark$	
(i) 0 ✓	
(j) 1 ✓	
(k) 2 ✓	
(l) 3 ✓	
(m) 4 $\checkmark$	
(n) 5	
(o) 6	
(p) 7	
(q) 8	

**Problem 1.4** Select all the values that are in the range of r.

Select All Correct Answers:

(a) -8

- (b) -7
- (c) -6
- (d) -5
- (e)  $-4 \checkmark$
- (f) −3 ✓
- (g)  $-2 \checkmark$
- (h)  $-1 \checkmark$
- (i) 0 ✓
- (j) 1 ✓
- (k) 2 ✓
- (l) 3 ✓
- (m) 4 ✓
- (n) 5
- (o) 6
- (p) 7
- (q) 8

**Problem 1.5** Select all the values that are in the range of s.

## ${\bf Select~All~Correct~Answers:}$

- (a)  $-8 \checkmark$
- (b) −7 ✓
- (c) −6 ✓
- (d)  $-5 \checkmark$
- (e) -4
- (f) -3
- (g) -2
- (h) -1

- (i) 0 ✓
- (j) 1
- (k) 2
- (l) 3
- (m) 4
- (n) 5 ✓
- (o) 6 ✓
- (p) 7 ✓
- (q) 8 ✓

**Problem 1.6** Select all the values that are in the domain of  $s \circ r$ .

## Select All Correct Answers:

- (a) -8
- (b) -7
- (c) -6
- (d) -5
- (e) -4  $\checkmark$
- (f) −3 ✓
- (g)  $-2 \checkmark$
- (h)  $-1 \checkmark$
- (i) 0 ✓
- (j) 1 ✓
- (k) 2 ✓
- (l) 3 ✓
- (m) 4 ✓
- (n) 5
- (o) 6

Problem 1.7 Select all the values that are in the domain of $r \circ s$ .  Select All Correct Answers:  (a) -8 (b) -7 (c) -6 (d) -5 (e) -4 (f) -3 (g) -2 (h) -1 (i) $0 \checkmark$ (j) $1$ (k) $2$ (l) $3$ (m) $4$ (n) $5$ (o) $6$ (p) $7$	(q) 8	
<ul> <li>(a) -8</li> <li>(b) -7</li> <li>(c) -6</li> <li>(d) -5</li> <li>(e) -4</li> <li>(f) -3</li> <li>(g) -2</li> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	Problem 1.	7 Select all the values that are in the domain of $r \circ s$
<ul> <li>(b) -7</li> <li>(c) -6</li> <li>(d) -5</li> <li>(e) -4</li> <li>(f) -3</li> <li>(g) -2</li> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	Select All Co	orrect Answers:
(c) -6 (d) -5 (e) -4 (f) -3 (g) -2 (h) -1 (i) 0 ✓ (j) 1 (k) 2 (l) 3 (m) 4 (n) 5 (o) 6	(a) $-8$	
<ul> <li>(d) -5</li> <li>(e) -4</li> <li>(f) -3</li> <li>(g) -2</li> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(b) $-7$	
<ul> <li>(e) -4</li> <li>(f) -3</li> <li>(g) -2</li> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(c) $-6$	
<ul> <li>(f) -3</li> <li>(g) -2</li> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(d) $-5$	
<ul> <li>(g) -2</li> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(e) $-4$	
<ul> <li>(h) -1</li> <li>(i) 0 ✓</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(f) $-3$	
<ul> <li>(i) 0 √</li> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(g) $-2$	
<ul> <li>(j) 1</li> <li>(k) 2</li> <li>(l) 3</li> <li>(m) 4</li> <li>(n) 5</li> <li>(o) 6</li> </ul>	(h) $-1$	
(k) 2 (l) 3 (m) 4 (n) 5 (o) 6	(i) 0 ✓	
(1) 3 (m) 4 (n) 5 (o) 6	(j) 1	
(m) 4 (n) 5 (o) 6	(k) 2	
(n) 5 (o) 6	(1) 3	
(o) 6	(m) 4	
	(n) 5	
(p) 7	(o) 6	
(1)	(p) 7	
(q) 8	(q) 8	